



DETECTION OF ADULTERATION IN RAW COW MILK SUPPLIED IN THE QAZVIN PROVINCE, IRAN, DURING (2015-2016)

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ABSTRACT

Milk is the most appropriate source of food required for growth of infants and Children and for preservation of health in adults, It supplies nutrients like proteins, carbohydrates, fat, vitamins and minerals in moderate amounts in an easily digestible form. Improving milk quality; in addition to maintaining the health satisfaction of milk and its products consumer, is really important. Milk adulteration is a very common food fraud and is a big social problem both in the backward and advanced countries. Apart from the ethical and economical issue, it also causes serious health problems. So, given the importance of above facts, this study aims to detect the some of common adulteration was conducted in raw cow milk collected from Qazvin province. A total 61 raw milk samples were collected from 15 collection center of raw milk during the different seasons (2015-2016). The results showed that, 4.9% of the milk samples were adulterated with water. Formalin, hydrogen peroxide and salt were detected as 16.4, 11.5 and 34.4 % in the milk samples, respectively. None of the samples were contaminated with bicarbonate. The number of samples positive containing salt, formalin, hydrogen peroxide, added water and bicarbonate were as 21, 10, 7, 3 and 0, respectively. Positive cases of formalin, salt and hydrogen peroxide in the first six months were higher than the second six months. However, the only positive cases of formalin was significant between warm and cold seasons ($P<0.05$). Milk used for human consumption can be adulterated with cheaper materials or hazardous chemicals. Thus, more analysis is essential to create awareness among the consumers regarding malpractices and negligence in milk production, especially in the warm seasons.
